

TACSR / AS

(Thermal Resistant Aluminium Conductor Aluminium Clad Steel Reinforced)

Standard Specification : ASTM B 549 : 2010 & JEC 3406 : 2010



Technical Properties

Type	Number / Diameter of Wire		Calculated Cross Section Area		Approx. Overall Diameter	Approx. Weight of Conductor	Calculated Breaking Load	DC Resistance at 20 °C Max.	Current Carrying Capacity *	Standard Length per Reel
	TAL	AS	TAL	AS						
	No. / mm	No. / mm	mm ²	mm ²						
Thrasher	76/4.43	19/2.07	1171	63.9	45.79	3,682	246	0.0248	2,490	1,000
Kiwi	72/4.41	7/2.94	1100	47.5	44.10	3,373	218	0.0265	2,387	1,000
Bluebird	84/4.07	19/2.44	1093	88.8	44.76	3,628	262	0.0263	2,406	1,000
Chukar	84/3.70	19/2.22	903	73.5	40.70	2,999	220	0.0319	2,136	1,000
Falcon	54/4.36	19/2.62	806	102.4	39.26	2,921	236	0.0352	2,016	1,000
Lapwing	45/4.78	7/3.18	808	55.6	38.22	2,603	186	0.0356	1,986	1,000
Parrot	54/4.25	19/2.55	766	97.0	38.25	2,774	224	0.0370	1,951	1,000
Nuthatch	45/4.65	7/3.10	764	52.8	37.20	2,464	177	0.0376	1,917	1,000
Plover	54/4.14	19/2.48	727	91.8	37.24	2,630	212	0.0390	1,886	1,000
Bobolink	45/4.53	7/3.02	725	50.1	36.24	2,339	167	0.0397	1,854	1,000
Martin	54/4.02	19/2.41	685	86.7	36.17	2,481	201	0.0414	1,816	1,000
Dipper	45/4.40	7/2.93	684	47.2	35.19	2,206	158	0.0420	1,785	2,000
Pheasant	54/3.90	19/2.34	645	81.7	35.10	2,336	189	0.0440	1,746	2,000
Bittern	45/4.27	7/2.85	644	44.7	34.17	2,079	149	0.0446	1,718	2,000
Skylark	36/4.78	1/4.78	646	17.9	33.46	1,897	114	0.0449	1,700	2,000
Grackle	54/3.77	19/2.27	603	76.9	33.97	2,186	179	0.0470	1,672	2,000
Bunting	45/4.14	7/2.76	606	41.9	33.12	1,954	139	0.0475	1,650	2,000
Finch	54/3.65	19/2.19	565	71.6	32.85	2,046	167	0.0502	1,602	2,000
Bluejay	45/4.00	7/2.66	565	38.9	31.98	1,822	130	0.0509	1,577	2,000
Curlew	54/3.51	7/3.51	523	67.7	31.59	1,894	158	0.0540	1,526	2,000
Ortolan	45/3.85	7/2.57	524	36.3	30.81	1,690	121	0.0549	1,501	2,000
Tanager	36/4.30	1/4.30	523	14.5	30.10	1,535	94	0.0555	1,481	2,000
Cardinal	54/3.38	7/3.38	485	62.8	30.42	1,756	146	0.0582	1,452	2,000
Rail	45/3.70	7/2.47	484	33.5	29.61	1,561	113	0.0595	1,424	2,000
Catbird	36/4.14	1/4.14	485	13.5	28.98	1,423	87	0.0599	1,409	2,000
Canary	54/3.28	7/3.28	456	59.1	29.52	1,654	138	0.0618	1,396	2,000
Ruddy	45/3.59	7/2.40	456	31.7	28.74	1,470	107	0.0631	1,369	2,000

*Note :

Ambient temperature

Wind velocity

Continuous operating temperature of conductor

: 40° C

: 0.5 m/sec

: 150° C

Conductivity of TAL

Solar absorbtion coefficient

Emissivity with respect to black body

: 60% IACS

: 0.5

: 0.6

Technical Properties

Type	Number / Diameter of Wire		Calculated Cross Section Area		Approx. Overall Diameter	Approx. Weight of Conductor	Calculated Breaking Load	DC Resistance at 20 °C Max.	Current Carrying Capacity *	Standard Length per Reel
	TAL	AS	TAL	AS						
	No. / mm	No. / mm	mm²	mm²						
Mallary	30/4.14	19/2.48	404	91.8	28.96	1,729	165	0.0678	1,325	2,000
Condor	54/3.08	7/3.08	402	52.2	27.72	1,459	124	0.0701	1,285	2,000
Tern	45/3.38	7/2.25	404	27.8	27.03	1,302	96	0.0712	1,264	2,000
Drake	26/4.44	7/3.45	403	65.4	28.11	1,547	136	0.0693	1,298	2,000
Cuckoo	24/4.62	7/3.08	402	52.2	27.72	1,459	122	0.0701	1,285	2,000
Coot	36/3.77	1/3.77	402	11.2	26.39	1,180	74	0.0722	1,246	2,000
Redwing	30/3.92	19/2.35	362	82.4	27.43	1,551	149	0.0756	1,233	2,000
Starling	26/4.21	7/3.28	362	59.1	26.68	1,393	122	0.0770	1,211	2,000
Stilt	24/4.39	7/2.92	363	46.9	26.32	1,316	110	0.0776	1,201	2,000
Gannet	26/4.07	7/3.16	338	54.9	25.76	1,299	116	0.0825	1,157	2,000
Flamingo	24/4.23	7/2.82	337	43.7	25.38	1,223	103	0.0836	1,144	2,000
Egret	30/3.70	19/2.22	323	73.5	25.90	1,382	133	0.0848	1,142	2,000
Scooter	30/3.70	7/3.70	323	75.3	25.90	1,393	130	0.0847	1,143	2,000
Grosbeak	26/3.97	7/3.09	322	52.5	25.15	1,238	110	0.0866	1,120	2,000
Rook	24/4.14	7/2.76	323	41.9	24.84	1,171	98	0.0873	1,112	2,000
Swift	36/3.38	1/3.38	323	9.0	23.66	949	61	0.0899	1,078	2,000
Kingbird	18/4.78	1/4.78	323	17.9	23.90	1,008	67	0.0890	1,087	2,000
Teal	30/3.61	19/2.16	307	69.6	25.24	1,313	127	0.0892	1,105	2,000
Wood Duck	30/3.61	7/3.61	307	71.6	25.27	1,326	126	0.0890	1,107	2,000
Squab	26/3.87	7/3.01	306	49.8	24.51	1,176	105	0.0912	1,083	2,000
Peacock	24/4.03	7/2.69	306	39.8	24.19	1,110	93	0.0921	1,073	2,000
Eagle	30/3.46	7/3.46	282	65.8	24.22	1,218	119	0.0968	1,046	2,000
Dove	26/3.72	7/2.89	283	45.9	23.55	1,086	97	0.0987	1,027	2,000
Parakeet	24/3.87	7/2.58	282	36.6	23.22	1,023	86	0.0999	1,017	2,000
Ospray	18/4.47	1/4.47	282	15.7	22.35	881	59	0.1018	995	2,000
Hen	30/3.20	7/3.20	241	56.3	22.40	1,042	104	0.1132	943	2,000
Hawk	26/3.44	7/2.68	242	39.5	21.80	930	84	0.1154	927	2,000
Flicker	24/3.58	7/2.39	242	31.4	21.49	876	74	0.1167	917	2,000
Pelican	18/4.14	1/4.14	242	13.5	20.70	756	51	0.1187	899	2,000
Lark	30/2.92	7/2.92	201	46.9	20.44	867	87	0.1360	835	2,000
Ibils	26/3.14	7/2.44	201	32.7	19.88	774	70	0.1385	821	2,000
Brant	24/3.27	7/2.18	202	26.1	19.62	731	63	0.1399	813	2,000
Chickadee	18/3.77	1/3.77	201	11.2	18.85	627	44	0.1431	794	2,000
Oriole	30/2.69	7/2.69	170	39.8	18.83	736	74	0.1602	749	2,000
Linnet	26/2.89	7/2.25	171	27.8	18.31	656	60	0.1635	736	2,000
Merlin	18/3.47	1/3.47	170	9.5	17.35	531	38	0.1689	711	2,000
Ostrich	26/2.73	7/2.12	152	24.7	17.28	585	54	0.1833	682	2,000
Partridge	26/2.57	7/2.00	135	22.0	16.28	519	48	0.2067	630	2,000
Waxwing	18/3.09	1/3.09	135	7.5	15.45	421	30	0.2131	610	2,000
Penguin	6/4.77	1/4.77	107	17.9	14.31	412	34	0.2573	542	2,000
Cochin	12/3.37	7/3.37	107	62.4	16.85	709	88	0.2290	604	2,000
Brahma	16/2.86	19/2.48	103	91.8	18.12	893	121	0.2191	631	2,000
Dorking	12/3.20	7/3.20	96.5	56.3	16.00	640	81	0.2540	564	2,000
Dotterel	12/3.08	7/3.08	89.4	52.2	15.40	593	75	0.2742	536	2,000
Pigeon	6/4.25	1/4.25	85.1	14.2	12.75	327	28	0.3241	465	2,000

*Note : Ambient temperature : 40° C Conductivity of TAL : 60% IACS
Wind velocity : 0.5 m/sec Solar absorbtion coefficient : 0.5
Continuous operating temperature of conductor : 150° C Emissivity with respect to black body : 0.6

Technical Properties

Type	Number / Diameter of Wire		Calculated Cross Section Area		Approx. Overall Diameter	Approx. Weight of Conductor	Calculated Breaking Load	DC Resistance at 20 °C Max.	Current Carrying Capacity *	Standard Length per Reel
	TAL	AS	TAL	AS						
	No. / mm	No. / mm	mm²	mm²						
Guinea	12/2.92	7/2.92	80.4	46.9	14.60	533	68	0.3051	545	2,000
Leghorn	12/2.69	7/2.69	68.2	39.8	13.45	452	58	0.3595	448	2,000
Quail	6/3.78	1/3.78	67.3	11.2	11.34	258	23	0.4097	399	2,000
Minorca	12/2.44	7/2.44	56.1	32.7	12.20	372	48	0.4369	394	2,000
Raven	6/3.37	1/3.37	53.5	8.9	10.11	205	19	0.5155	343	2,000
Petrel	12/2.34	7/2.34	51.6	30.1	11.70	342	44	0.4750	373	2,000
Robin	6/3.00	1/3.00	42.4	7.1	9.00	163	15	0.6505	295	2,000
Grouse	8/2.54	1/4.24	40.5	14.1	9.32	205	22	0.6455	299	2,000
Sparate	7/2.47	1/3.30	33.5	8.6	8.24	148	16	0.7995	259	2,000
Sparrow	6/2.67	1/2.67	33.6	5.6	8.01	129	12	0.8212	253	2,000
Swallow	6/2.38	1/2.38	26.7	4.4	7.14	102	10	1.034	218	2,000
Swanate	7/1.96	1/2.61	21.1	5.4	6.53	93	10	1.270	192	2,000
Swan	6/2.12	1/2.12	21.2	3.5	6.36	81	8	1.303	188	2,000

*Note :

Ambient temperature	: 40° C	Conductivity of TAL	: 60% IACS
Wind velocity	: 0.5 m/sec	Solar absorbtion coefficient	: 0.5
Continuous operating temperature of conductor	: 150°C	Emissivity with respect to black body	: 0.6